UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,570	10/31/2003	Nicholas Gerald Grey	100103.52885US	8422

30902 7590 02/16/2006

SHOOK, HARDY & BACON L.L.P.
600 14TH STREET NW SUITE 800
WASHINGTON, DC 20005-2004

EXAMINER	
CHIN, RANDALL E	
ART UNIT	PAPER NUMBER
1744	

DATE MAILED: 02/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/697,570	GREY, NICHOLAS GERALD	
	Examiner	Art Unit	
	Randall Chin	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *35-52,56-76 and 78-93* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *35-52,56-76 and 78-93* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 January 2006* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Specification

1. The disclosure is objected to because of the following informalities:

In paragraph [0044], line 8, the phrase the rear wall "in use" is awkward and unclear.

In paragraph [0044], line 10, the phrase the front wall "in use" is awkward and unclear.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 35-52, 56-76 and 78-93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 59166126 (hereinafter Japan '126).

Japan '126 teaches a surface cleaning apparatus in Fig. 1, comprising a body having a forward compartment 7a and rear compartment at 26, an elongate rotatable brush 4 extending across the forward compartment, and a cleaning strip assembly 12 (Figs. 1 or 4) pivotably mounted on an underside of the body. Japan '126 teaches all of the recited subject matter with the exception of a belt connecting the motor and rotatable brush as well as a compartment or "tunnel" for housing the belt. The drive arrangement of Japan '126 could well be by motor and gear or belt driven arrangement.

It would have been well within the level of competence of one skilled in the art to have provided and/or modified Japan '126 for a belt connecting the motor to the brush and a tunnel for enclosing the belt in order to drive the brush in rotatable fashion as either arrangement is old and well known. Merely modifying Japan '126 to incorporate a belt or gear driven arrangement with electric motor is obvious to one skilled in the art and is of no patentable moment.

As for claim 36, the cleaning strip assembly 12 comprises an elongate support member and a flexible strip extending radially from the support member along substantially the entire length of the elongate support member.

As for claim 37, the cleaning strip assembly further comprises at least one tab defined by the entire flexible strip **itself** oriented to contact the surface being cleaned during cleaning, the contact of the at least one tab with the surface being cleaned capable of causing the cleaning strip assembly to pivot between a cleaning position and an elevated position.

As for claims 38 and 39 (note claim objections above), the tab(s) can cause the cleaning strip assembly to pivot into a cleaning or elevated position when the apparatus moves in a forward or rearward direction.

As for claim 40, there is an intermediate compartment defined by a wall between the forward compartment and the intermediate compartment, a wall between the intermediate compartment and the rear compartment, and side walls (Fig. 1).

As for claim 41, it would have been obvious to one skilled in the art to have provided for a removable side wall (if not already included) in order to facilitate operation of the device.

As for claim 42, there is a cover 6 (Fig. 4).

As for claim 45, the wall 7e between the forward and intermediate compartments is inclined rearwardly in Fig. 1 (which is a relative term here).

As for claim 46, the wall (which could be 7d in Fig. 1) between the intermediate and rear compartments is considered closed and therefore "seals" the rear compartment from the intermediate compartment.

As for claim 47, a front part of the forward compartment is "movable" (the entire device is movable) to expose bristles 5 on the front part of the elongate rotatable brush at the front part of the forward compartment.

As for claim 48, the rear compartment is provided with ground-engaging wheels 3.

As for claim 49, there is a handle 29 rotatable about an axial direction (Fig. 1) of the handle to facilitate steering of the apparatus.

As for claim 50, the handle is pivotable about an axis transverse to the axial direction of the handle (see pivot arrangement in Fig. 1).

As for claim 51, Japan '126 clearly teaches a housing 1, an elongate brush 4 arrangement mounted so as to be rotatable about a longitudinal axis thereof and extending across the housing for contacting a surface to be cleaned, and a substantially continuous surface cleaning strip 12 extending across an underside of the housing (Fig.

1). Japan '126 further teaches movement responsive means including "friction engaging means" 14 (Fig. 1) adapted to engage the surface to be cleaned and movable in opposing first and second directions in response to movement of the apparatus in opposing first and second directions (see arrows a, a' in Fig. 1) relative to the surface to be cleaned, movement of the friction engaging means "being transmitted" to the cleaning strip, and wherein movement of the apparatus in the first direction causes the cleaning strip to adopt a first orientation relative to the housing such that in use a substantially continuous edge of the cleaning strip contacts the surface to be cleaned, and movement of the apparatus in the second direction causes the cleaning strip to adopt a second orientation relative to the housing so as to raise the cleaning strip clear of the surface to be cleaned (as can be seen in Fig. 1).

As for claim 52, the cleaning strip is mounted on a support, as stated above, which is movable between first and second positions by the movement responsive means in response to movement of the surface cleaning apparatus.

As for claim 56, the cleaning strip and the friction engaging means are mounted on an elongate member 11a (Fig. 1) which is pivotably mounted (at 13) relative to the housing of the apparatus, whereby contact between the friction engaging means and the surface to be cleaned causes the elongate member 11a to pivot such that the cleaning strip adopts one of the first and second orientations.

As for claim 57, the cleaning strip 12 and the friction engaging means 14 project substantially radially from the elongate member (Fig. 1).

As for claim 58, the cleaning strip and the friction engaging means extend at different angles relative to each other.

As for claim 59, an included angle between the cleaning strip and the friction engaging means is deemed "substantially" 45 degrees (Fig. 1).

As for claim 60, to the extent of what a "tab" means, Japan '126 teaches such a "tab" 14 extending from the elongate member.

As for claim 61, one skilled in the art would find it obvious to make the elongate member out of a flexible material to avoid damage to furniture or walls.

As for claim 62, the cleaning strip and the friction engaging means are formed integrally with the elongate member in the final state.

As for claim 63, the elongate member comprises a recessed groove and the cleaning strip 12 comprises a projection of complementary configuration adapted to retain the cleaning strip in the recessed groove (Fig. 1).

As for claim 64, the recessed groove and the projection are deemed "substantially T-shaped" (Fig. 1).

As for the dimensional limitations relating to the extension of the cleaning strip in claims 65 and 66, one skilled in the art would find it obvious to optimally select an appropriate value or range depending on the size of the size of the apparatus itself.

As for claims 67, 68 and 69, there are means for inhibiting the movement (tip of wall 9 in Fig. 1) of the cleaning strip in the longitudinal direction thereof. A movable means would be obvious if the walls were removable themselves.

As for claim 70, the cleaning strip 12 comprises a flexible material.

As for claim 71, the friction engaging means comprises a flexible material (bristles).

As for claim 72, the same reasoning applies here with respect to claim 35 above.

As for claims 73 and 74, the provision of a battery or rechargeable battery would be an obvious modification to one of ordinary skill in order to make the device more readily portable and/or prolong it's useful service life.

In order to avoid a repetitive explanation of claimed subject matter, claims 75, 76 and 78-82 are rejected similarly as above as the claimed subject matter parallels that already claimed

In order to avoid a repetitive explanation of claimed subject matter, claims 83-92 are rejected similarly as above as the claimed subject matter parallels that already claimed. It will be added however with respect to claim 93, a lower front region of the body 1 is considered "chamfered" in Fig. 1 such that when the apparatus is inclined relative to a surface to be cleaned, contact between the bristles and the surface to be cleaned can be increased.

Conclusion

4. Applicant's arguments filed 20 January 2006 have been fully considered but they are not persuasive.

Applicant argues, with respect to claims 35 and 83, that the Japan '126 reference fails to describe or suggest a belt connecting the a motor and the rotatable brush. The drive arrangement of Japan '126 from a motor to brush could well be by gear or belt

driven arrangement. Again, it would have been well within the level of competence of one skilled in the art to have provided and/or modified for a motor and belt (or gear) connecting the motor to the brush and a tunnel for enclosing the belt in order to drive the brush in rotatable fashion as either arrangement is old and well known. Whether the drive for the rotatable brush is by gear or belt is well known in the art and are mere functional equivalents of each other and would be well within the level of ordinary skill to incorporate within.

As for claims 51 and 75, Applicant argues that claims 51 and 75 require a substantially continuous surface cleaning strip extending across an underside of the housing, wherein movement of the apparatus in a first and/or cleaning direction causes the cleaning strip to adopt a first and/or cleaning orientation relative to the housing such that in use a substantially continuous edge of the cleaning strip contacts the surface to be cleaned. Applicant further asserts that element 12 in Japan '126 (identified by the Examiner as the cleaning strip) "does not remain in contact a surface to be cleaned during motion of the sweeper in a first direction" and that there is "[N]o suggestion or description is provided that element 12 can or should remain in contact with the surface being swept while the sweeper is in motion." In response to Applicant's argument that the Japan '126 fails to show certain features of Applicant's invention, it is noted that the features upon which Applicant relies (i.e., that element 12 can or should **remain** in contact with the surface being swept while the sweeper is in motion) is not recited in rejected claims 51 or 75. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988

F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Claims 51 (at line 13) and 75 (at line 11) merely recite that the cleaning strip "**contacts** the surface to be cleaned" (emphasis added) which Japan '126 clearly meets.

Applicant should note already cited U.S. Patent 3,460,188 to Boyd, which clearly discloses all of the broad recited subject matter of **claims 35 and 83**. Boyd's "cleaning strip" 36 (Figs. 5 and 6) is flexible (col. 2, lines 35-42) and is deemed "pivotably mounted" in a broader sense. Applicant should also note already cited U.S. Patent 4,369,539, which clearly discloses all of the broad recited subject matter of **claims 35 and 83**.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communication from the Examiner should be directed to Randall Chin whose telephone number is (571) 272-1270. The Examiner can normally be reached on Monday through Thursday and every other Friday.

If attempts to reach the Examiner are unsuccessful, the Examiner's supervisor, Richard Crispino, can be reached at (571) 272-1226. The number for Technology Center 1700 is (571) 272-1700.

The central fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

R. Chin

Randall Chin
Primary Examiner
Art Unit 1744

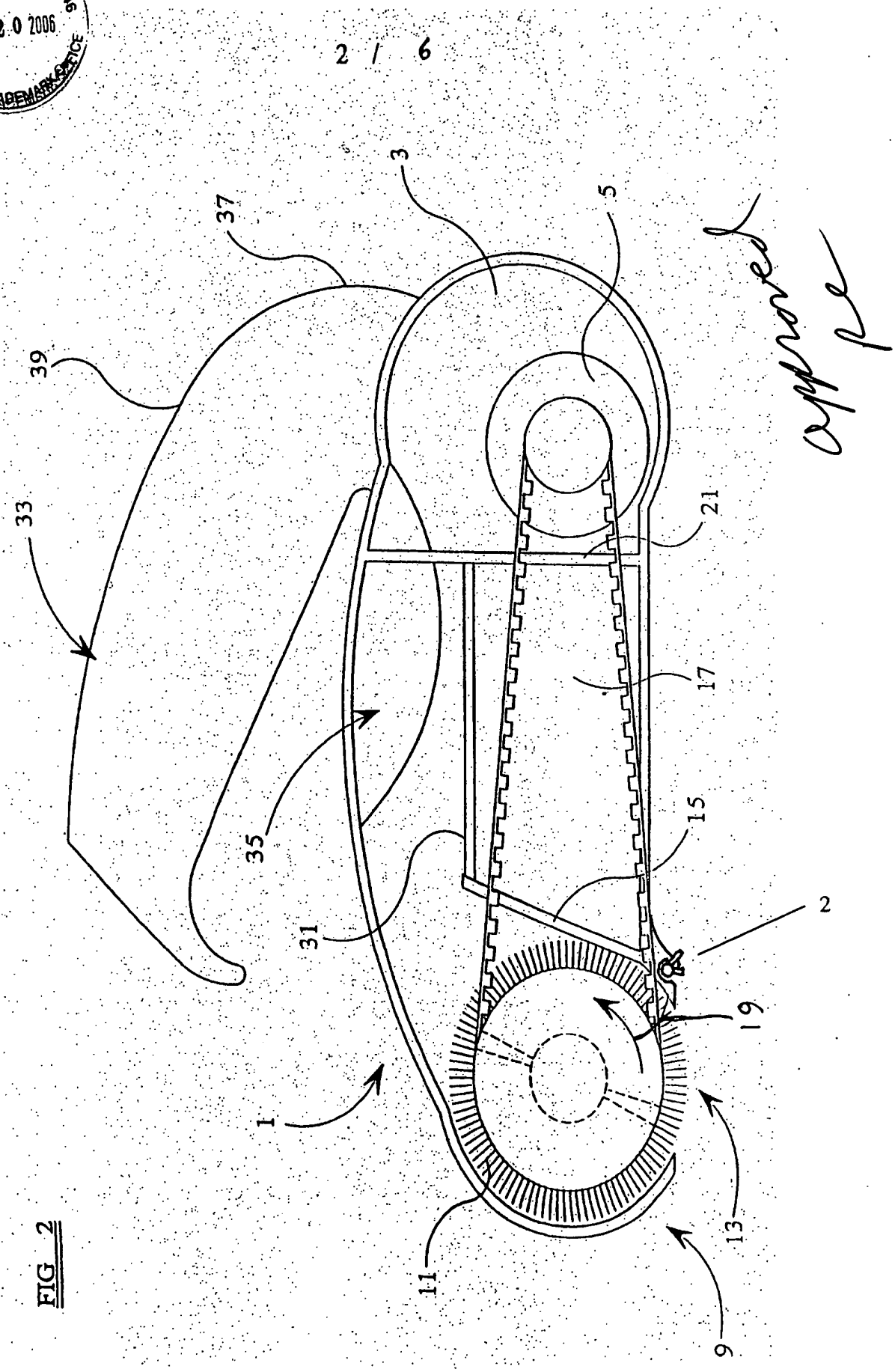

FIG 2

approved
per